

State Water Resources Control Board Workshop

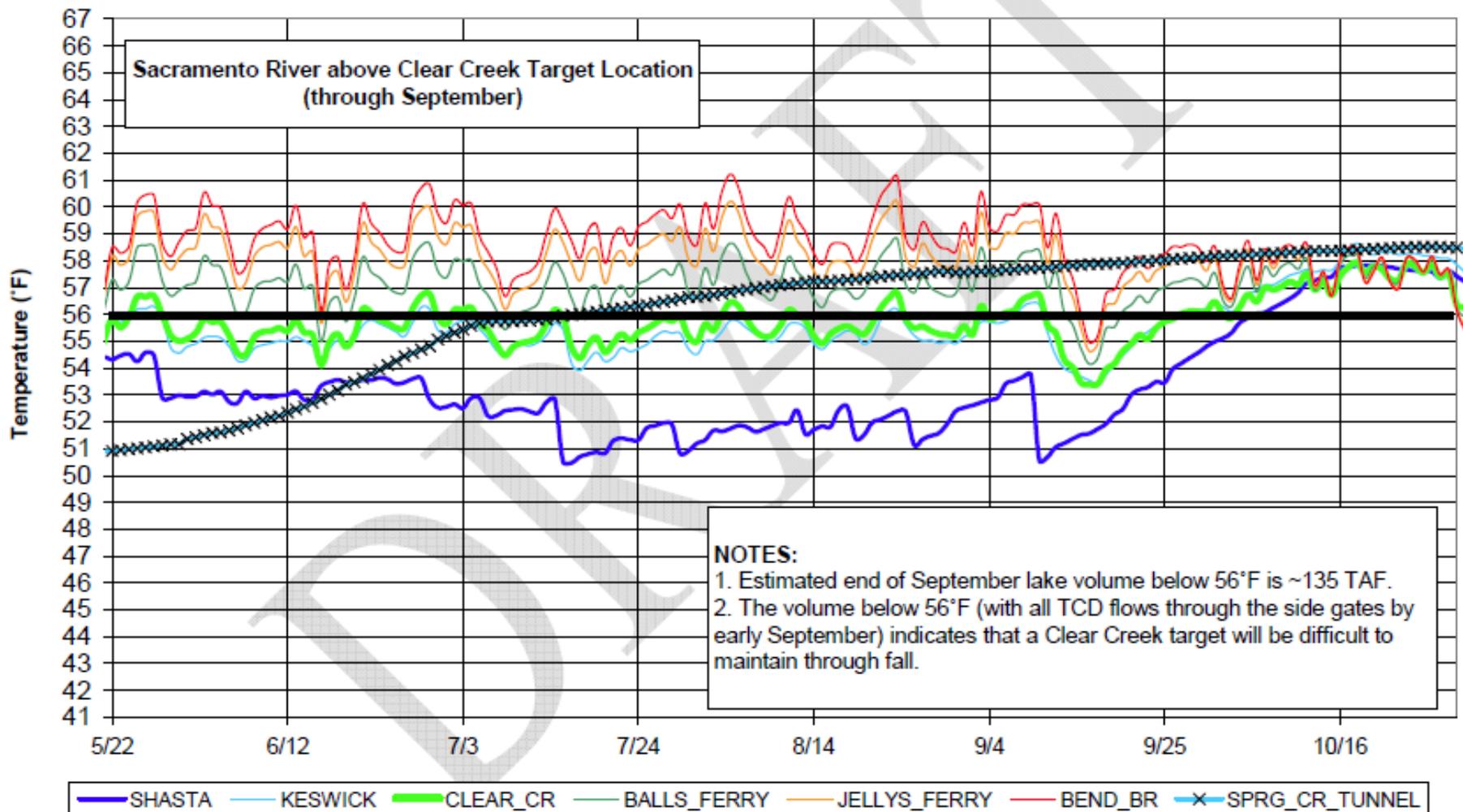
Fisheries Presentation

May 20, 2015



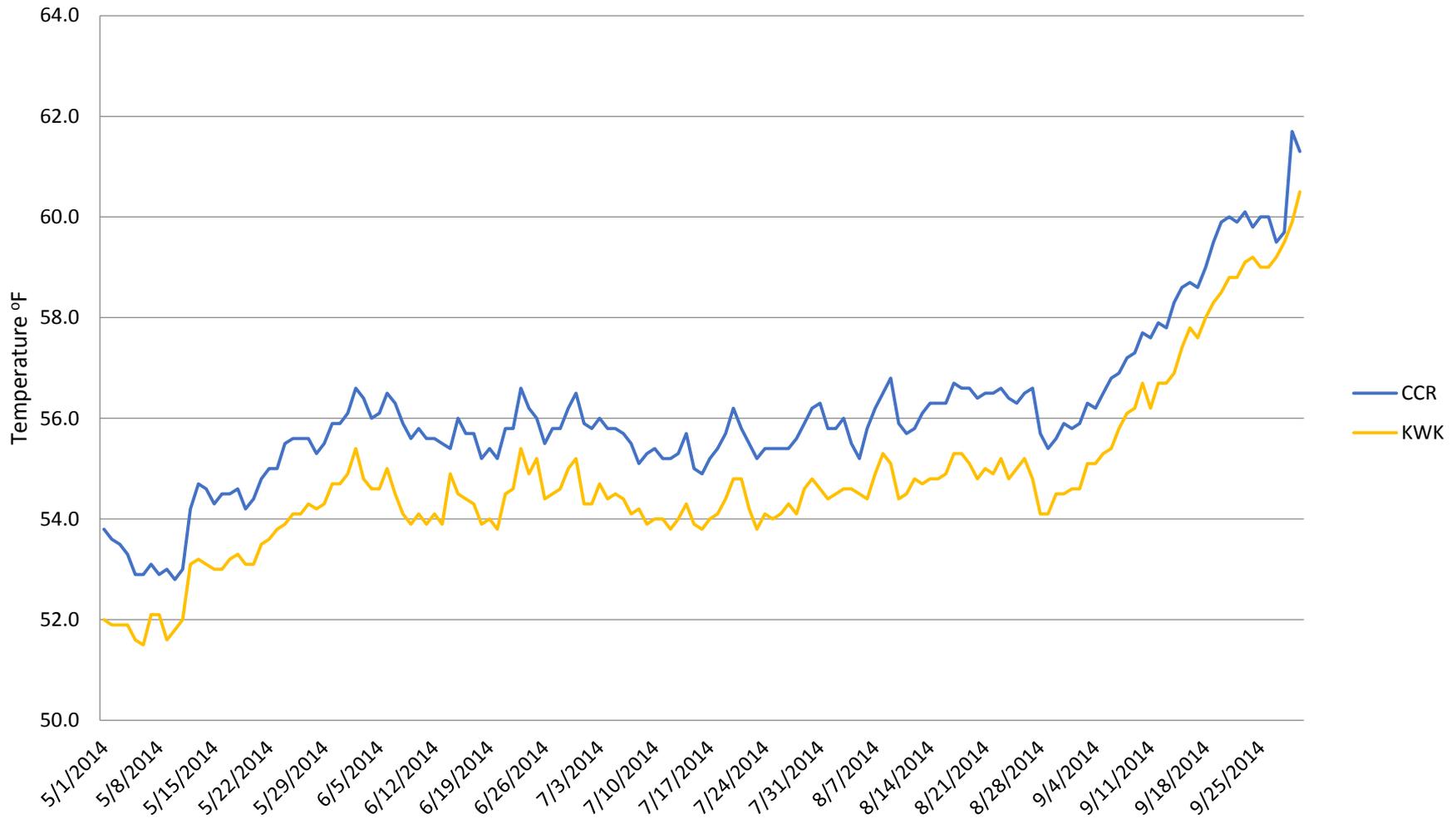
2014 Sacramento River May 90% Exceedance

- Minor difference between CCR and KWK



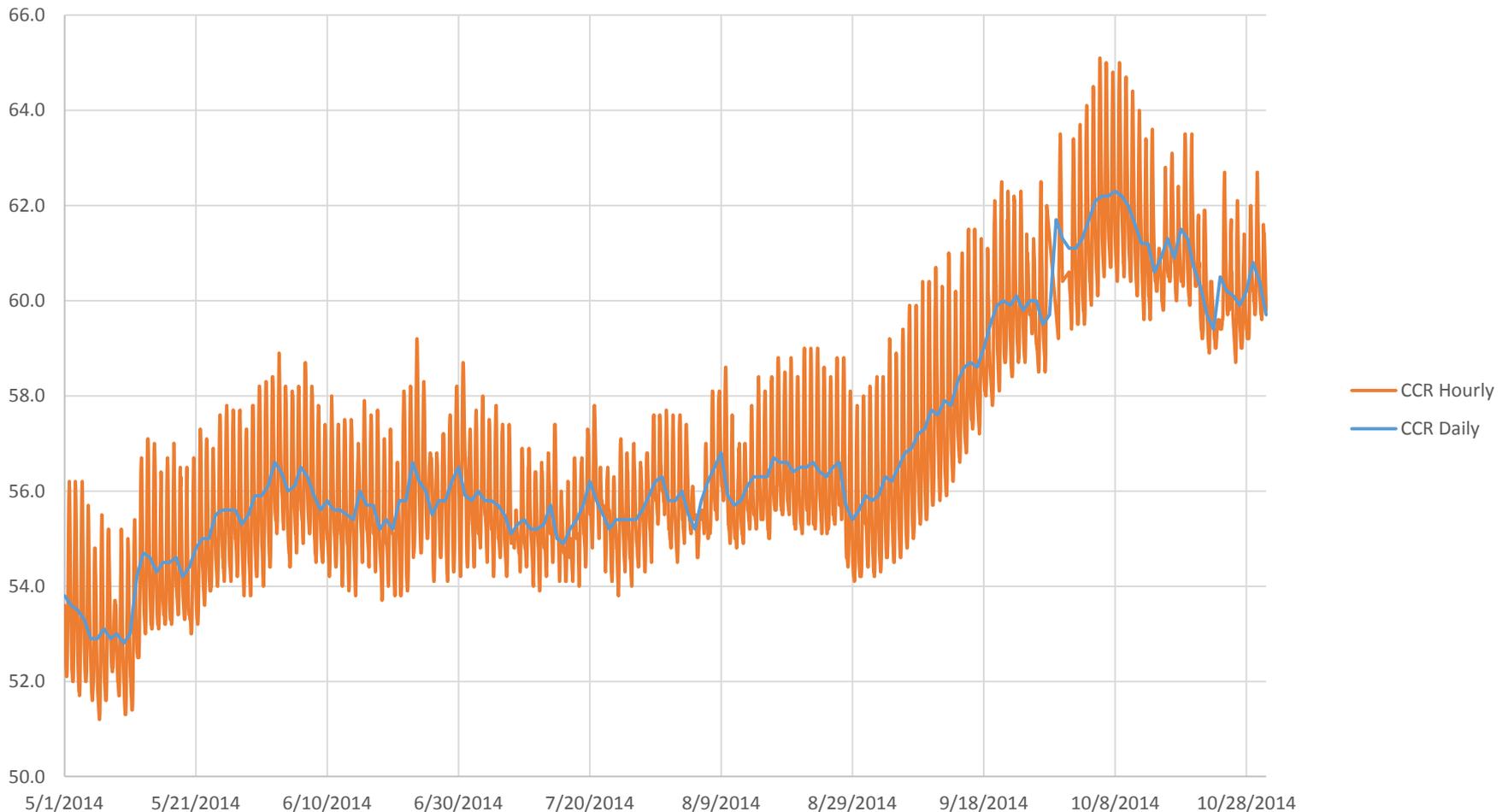
2014 Sacramento River Actual Temperatures

- 1.3°F difference between CCR and KWK

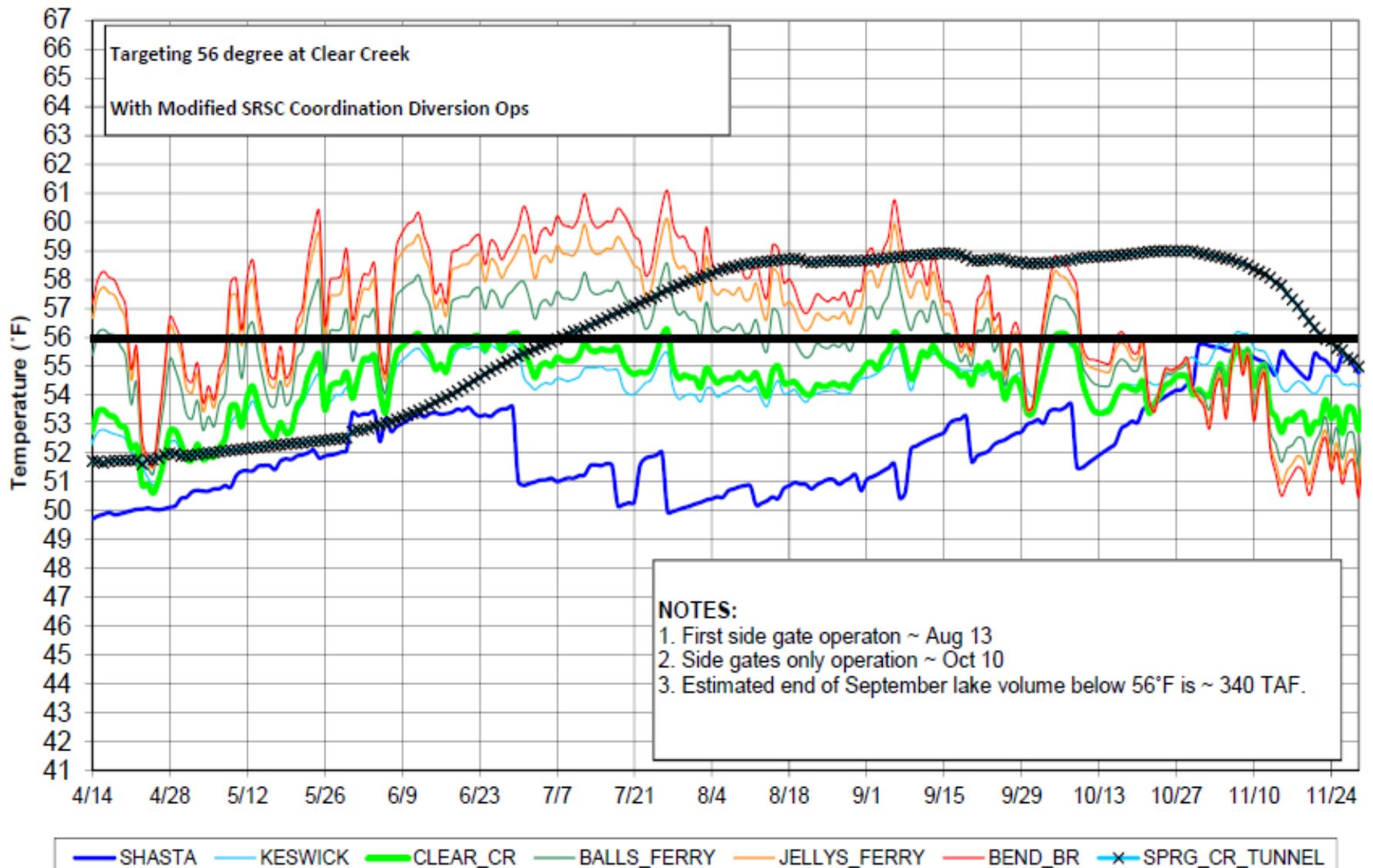


2014 CCR Daily vs. Hourly

- Even with a 56°F daily average temperature, winter-run are still exposed to 58°F water temperatures



Sacramento River Modeled Temperature 2015 April 90%-Exceedance Outlook



2015 Sacramento River Temperature Management Plan

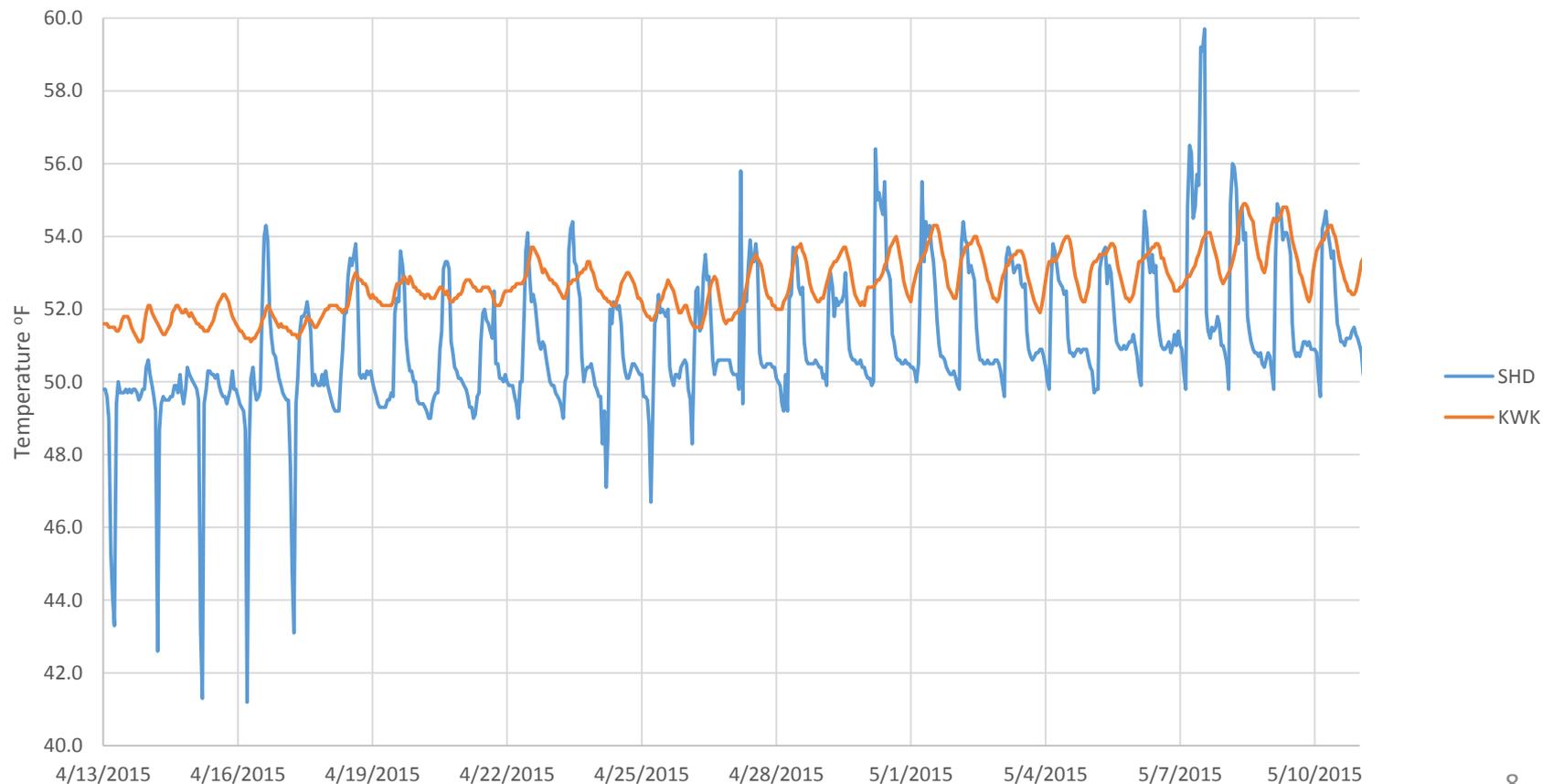
- Provisional Approval by SWRCB May 14, 2105
- Maintain 56°F TCP @ CCR throughout season
- Monthly average Keswick releases:
 - May – 7,500 cfs
 - June – 8,500 cfs
 - *July – 9,000 cfs (maximum)
 - August – 8,500 cfs
 - September – 6,500 cfs
 - **October – 5,250 cfs
 - **November – 4,000 cfs
- Flows should avoid dewatering redds and stranding juveniles

2015 Sacramento River Temperature Management Plan – Winter-run Provisions

- Improved Shasta Cold Water Pool
 - Relaxed Wilkins Slough requirements to 3,800 cfs
 - Relaxed D-1641 requirements
 - Delayed Sacramento River Settlement Contractor depletions
 - Delayed 56°F TCP @ CCR: 58°F until May 11 (1st WR redd/carcass)
 - Warm water bypass
- Addressing Temperature Modeling
 - Hindcast Report
 - Temperature Modeling Group
- Implementation of Winter-run Contingency Plan
 - Enhanced temperature and egg survival monitoring
 - Increased production at LSNFH; additional collection at ACID

2015 Shasta Dam (SHD) Warm Water Bypass

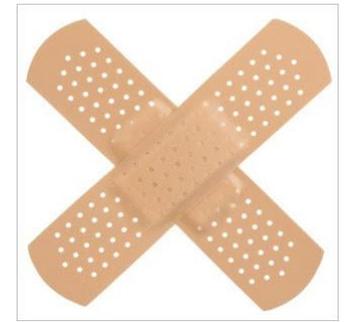
- Began April 16 – 1500 af/day
- By April 25 up to 3000 af/day
- As of May 15 = ~80 TAF of cold water pool savings



2015 Winter-run Monitoring Update

- ACID Trap
 - No fish captured yet
- Carcass Surveys
 - Started – April 28
 - 1st Carcass – May 10
- Aerial Redd Surveys
 - Started – May 11; No redds observed

Livingston Stone National Fish Hatchery (updated May 15, 2015)



	Hatchery Origin	Natural Origin	Total	Pre-Spawn Mortalities	Spawned	On Hand
Female	39	77	116	22	4	91
Male	28	51	79	13	7*	63

*Males are spawned more than once, so some spawned males may still be alive

- May 19: Retained 5 males and 4 females (preliminary, pending genetic confirmation). 2 more females spawned and 5 prespawn mortalities since the May 5 update.

Next steps

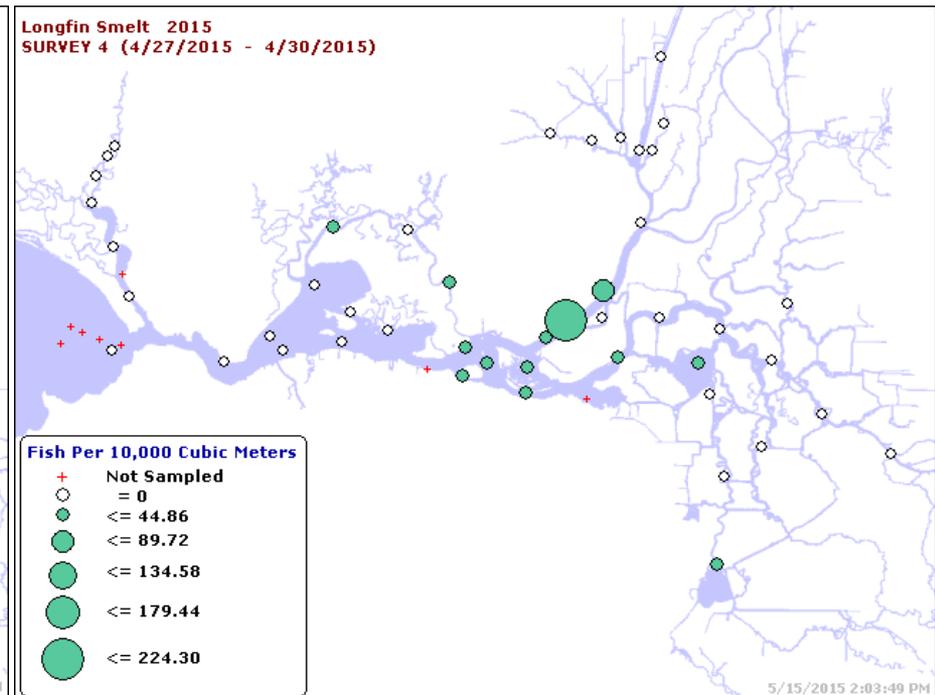
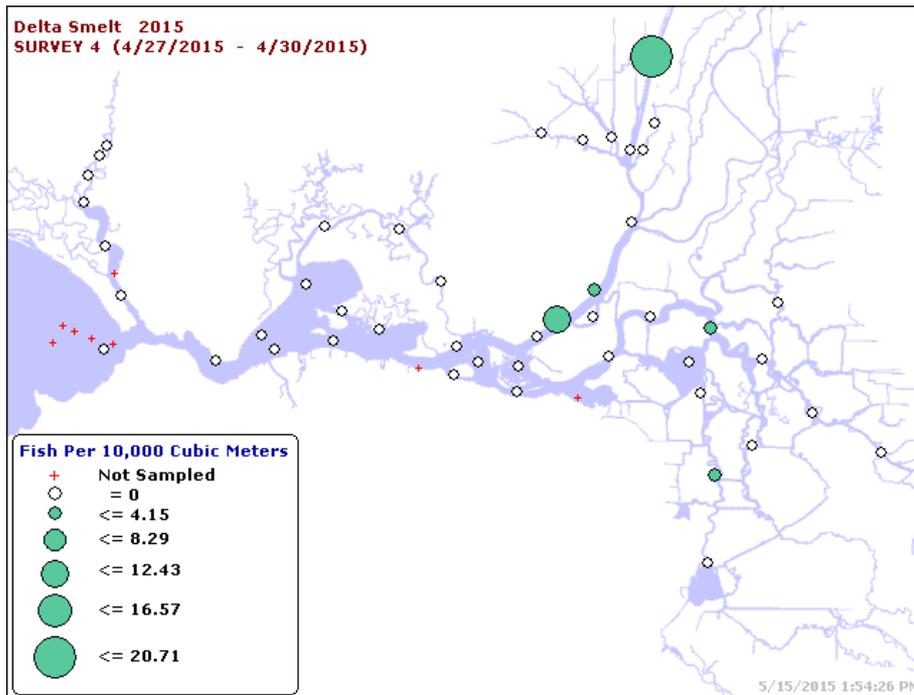
- NMFS formal concurrence for ESA compliance in progress. Continue aerial redd and carcass surveys
- Enhanced LSNFH production
- Real-time operations through the Sacramento River Temperature Task Group and other venues
- “If there are any indications that the above plan will not achieve temperature compliance throughout the temperature control season or the plan cannot be met, please notify me immediately.” Tom Howard, May 14, 2015

2015 Smelt Monitoring Update

- Spring Kodiak Trawl (SKT)
 - Targets adult Delta smelt Samples from January to May
 - 2015 catch 104, 37% of previous low catch in 2010
- 20 mm
 - Targets juvenile (> 20mm) Longfin and Delta smelt
 - Samples from March through June
- Bay Study
 - Samples year round from San Francisco Bay into the Delta
- Summer Towntnet (STN)
 - June-August, juvenile Delta Smelt abundance and distribution.

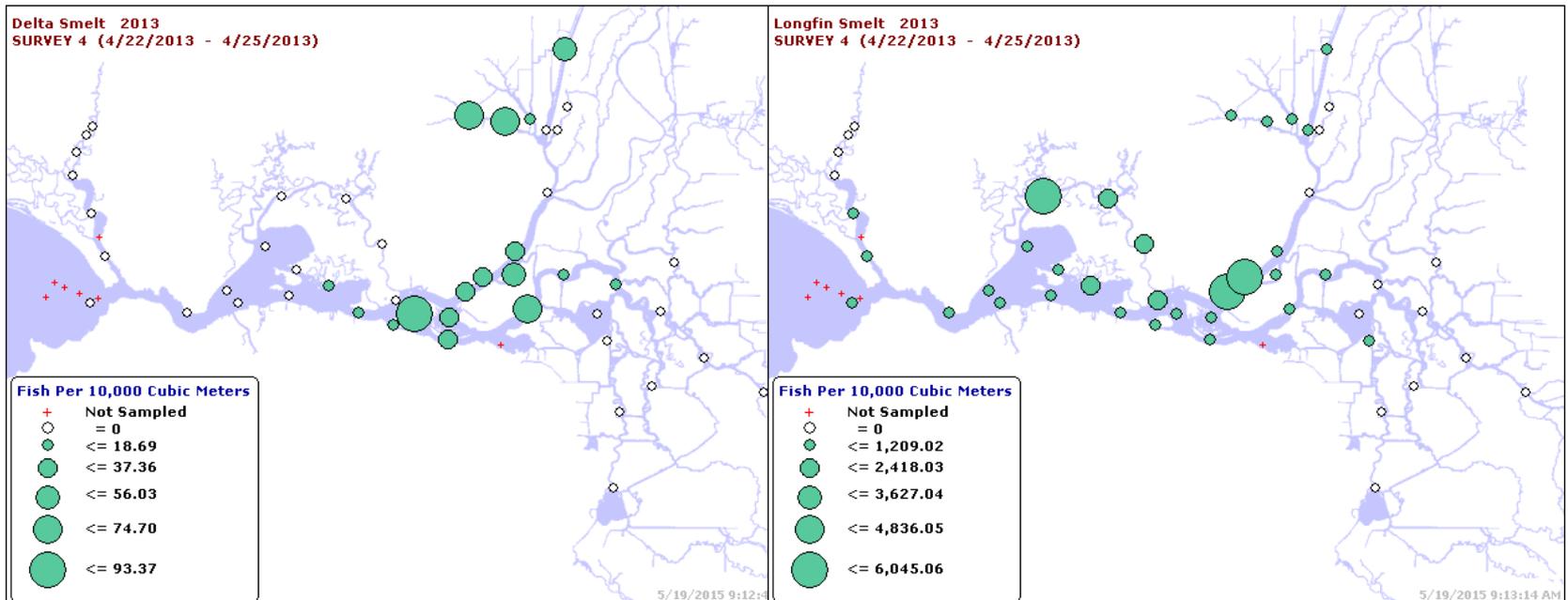
2015 Smelt Distribution Status

- 20 mm survey #4 shows the majority of juvenile Delta and Longfin smelt occurring near the confluence or in the north Delta.



For comparative purposes

- 2013 20 mm survey #4 distribution of Delta and Longfin Smelt under D-1641



2015 Smelt Distribution Status

- SKT survey #5 detected five adult Delta smelt, which is an increase from the previous survey which was only able to detect a single adult Delta smelt

